

## **Space Weather Workshop**

Millennium Hotel – Boulder, CO

April 13 - 17, 2015

### **Poster Abstracts**

Posters may be on display from Tuesday morning through Thursday afternoon. We request that authors be in attendance at their posters during the poster session on the day indicated below.

### **General Space Weather Activities and Operational Services (Tuesday)**

**Knipp, Delores** (University of Colorado, Boulder)

Poster Number: G1

Poster - Space Weather Journal

**Schrijver, Karel** (Lockheed Martin Advanced Technology Center)

Poster Number: G2

Poster - Understanding space weather to shield society: A global road map for 2015-2025  
commissioned by COSPAR and ILWS

**Jonas, Seth** (IDA)

Poster Number: G3

Poster - A History of Federal Involvement in Space Weather Forecasting

**Cade, Trey** (Baylor University)

Poster Number: G4

Poster - The Origin of "Space Weather"

**De la Luz, Victor** (UNAM Instituto de Geofísica)

Poster Number: G5

Poster - The Infrastructure of the Mexican Space Weather Service (SCIESMEX)

**Gonzalez Esparza, J. Americo** (Instituto de Geofísica, Universidad Nacional Autónoma de México)

Poster Number: G6

Poster - Mexican Space Weather Service (SCIESMEX)

**Engell, Alexander** (Weather Analytics)

Poster Number: G7

Poster - Space Weather Information System

### **Solar and Interplanetary Research and Applications (Tuesday)**

**McIntosh, Scott** (National Center for Atmospheric Research)

Poster Number: S1

Poster - On The Seasons Of Space Weather

**Shibata, Kazunari** (Kyoto University)

Poster Number: S2

Poster - Superflares on Solar type Stars and Their Implications on the Possibility of Superflares on the Sun

**Wadari, Shinichi** (National Institute of Information and Communications Technology)

Poster Number: S3

Poster - Statistics of events defined by UGEOA code and NOAA space weather scales

**Winter, Lisa** (AER)

Poster Number: S4

Poster - Developing an Empirical Model for Predicting Solar Energetic Particle Events

**Lee, Kangjin** (Kyung Hee University)

Poster Number: S5

Poster - Probabilistic Forecast Models of Solar Flares and CMEs

**Leka, KD** (NWRA)

Poster Number: S6

Poster - The NWRA Discriminant Analysis Flare Forecasting System (DAFFS)

**Guerra Aguilera, Jordan** (The Catholic University of America)

Poster Number: S7

Poster - Ensemble Forecasting of Major Solar Flares

**Hock-Mysliwiec, Rachel** (Air Force Research Laboratory)

Poster Number: S8

Poster - Modeling the EUV Irradiance of Solar Flares

**Henney, Carl** (AFRL)

Poster Number: S9

Poster - Forecasting Solar UV & F10.7 with ADAPT

**Jackson, Bernard** (University of California, San Diego)

Poster Number: S10

Poster - A Determination of the North-South Heliospheric Magnetic-Field Component from Inner-Corona Closed-Loop Propagation

**Den, Mitsue** (National Institute of Information and Communications Technology)

Poster Number: S11

Poster - REPPU (REProduce Plasma Universe) code for space weather simulators developed at NICT: 3-dimensional MHD simulation codes for the solar surface and global solar wind structure

**Nikolic, Ljubomir** (Natural Resources Canada)

Poster Number: S12

Poster - Development of a solar wind forecast model

**Corona-Romero, Pedro** (SCiESMEX, Universidad Nacional Autonoma de Mexico)

Poster Number: S13

Poster - SCiESMEX, fast forecasting of space weather through modeling energetic solar storms

**Murphy, Matthew** (RIT)

Poster Number: S14

Poster - Statistical Study of Interplanetary Coronal Mass Ejections with Strong Magnetic Fields

**Parker, Linda** (Jacobs Technology)

Poster Number: S15

Poster - The Advanced Composition Explorer Shock Database and Application to Particle Acceleration Theory

**Rowland, William** (CIRES/NGDC)

Poster Number: S16

Poster - DSCOVR Archive and Retrospective User Access

**Biesecker, Douglas** (NOAA)

Poster Number: S17

Poster - How DSCOVR Will Perform During Extreme Space Weather

**Cash, Michele** (University of Colorado)

Poster Number: S18

Poster - Development of an Operational L1 to Earth Delay Time Product

**Darnel, Jonathan** (CIRES)

Poster Number: S19

Poster - Demonstration of GOES-R Solar Imagery Products

**Fontenla, John** (NorthWest Research Associates)

Poster Number: S20

Poster - Status and Latest Improvements to SERFS

### **Ionosphere Research and Applications (Wednesday)**

**Berdermann, Jens** (German Aerospace Center)

Poster Number: I1

Poster - Provision of value added services within the ESPAS system

**Atulkar, Roshni** (National Institute of Technical Teachers' Training and Research, India)

Poster Number: I2

Poster - Impact of Geomagnetic disturbances on Ionospheric critical frequency ( $f_oF_2$ )

**Deng, Yue** (University of Texas at Arlington)

Poster Number: I3

Poster - Analysis of equatorial F-region vertical neutral winds from Brazil FPI observations

**Gentile, Louise** (Air Force Research Laboratory)

Poster Number: I4

Poster - C/NOFS Thermospheric Research and Reentry Experiment (T-RREX)

**Budzien, Scott** (Naval Research Laboratory)

Poster Number: I5

Poster - Next-generation SSULI+ Sensor for Operation Space Weather Applications

**Comberiate, Joseph** (JHU/Applied Physics Laboratory)

Poster Number: I6

Poster - Three-Dimensional Ionosphere and Scintillation Data Products with DMSP/SSUSI

**Dandenault, Patrick** (JHU/Applied Physics Laboratory)

Poster Number: I7

Poster - Remote Sensing of the Ionosphere: Operational Space Weather from DMSP/SSUSI

**Zhang, Yongliang** (JHU/Applied Physics Laboratory)

Poster Number: I8

Poster - Real-time identification of radar auroral clutter using SSUSI data

**Schaefer, Robert** (JHU/Applied Physics Laboratory)

Poster Number: I9

Poster - UV Imaging of Space Weather

**Azeem, Irfan** (ASTRA)

Poster Number: I10

Poster - Ground-Based GPS TEC Measurements of Traveling Ionospheric Disturbances Produced by Tropospheric Weather and Seismic Phenomena

**Azeem, Irfan** (ASTRA)

Poster Number: I11

Poster - Recent Results of Phase Scintillation and TEC from a Latitude Chain of GPS Receivers in Alaska

**Pilinski, Marcin** (ASTRA)

Poster Number: I12

Poster - Ensemble Assimilation Using First-Principles Models as a Tool for Three-Day Space Weather Forecasts

**Wang, Houjun** (University of Colorado, Boulder)

Poster Number: I13

Poster - Ionospheric Forecast during Sudden Stratospheric Warming Using the IDEA Model

**Maruyama, Naomi** (NOAA/NWS)

Poster Number: I14

Poster - Ionosphere Plasmasphere Electrodynamics (IPE) model development for space weather application

**Hsu, Chih-Ting** (NOAA/NCU)

Poster Number: I15

Poster - Global ionospheric specification and forecasting by inferring unobserved thermospheric and ionospheric state variables via an Ensemble Kalman Filter

**Chen, Weihan** (National Cheng Kung University)

Poster Number: I16

Poster - Global ionosphere monitoring and forecast using data assimilation of FORMOSAT-3/COSMIC and GPS data

**Matsuo, Tomoko** (NOAA/NWS)

Poster Number: I17

Poster - Predictability and Ensemble Modeling of the Space-Atmosphere Interaction Region

**Meehan, Jennifer** (Utah State University)

Poster Number: I18

Poster - Ionospheric Scale Height and its Relationship to Upper Atmospheric Neutral and Plasma Temperatures

**Yudin, Valery** (University of Colorado)

Poster Number: I19

Poster - Designing OSSE in the Whole Atmosphere Models: Analysis of GOLD and ICON Observations for Near Real Time Space Weather Predictions

**Shim, Ja Soon** (CUA/NASA GSFC)

Poster Number: I20

Poster - Modeling and validation of neutral density in higher altitude regions

**McGranaghan, Ryan** (University of Colorado, Boulder)

Poster Number: I21

Poster - A fast, parameterized model of the upper atmospheric ionization, densities, and conductivity

**Wu, Qian** (National Center for Atmospheric Research)

Poster Number: I22

Poster - Thermospheric Wind Observation and Space Weather Research at NCAR

**Stohl, Emily** (University of Colorado, Boulder)

Poster Number: I23

Poster - Global Scale Views of Upper Atmosphere Power Input and Output

**Kilcommons, Liam** (University of Colorado, Boulder)

Poster Number: I24

Poster - AtModExplorer: an open source tool for visually exploring (empirical) atmospheric models

### **Magnetosphere Research and Applications (Thursday)**

**Fox, Nicola** (JHU/Applied Physics Laboratory)

Poster Number: M1

Poster - Space Weather with the Van Allen Probes

**Green, Janet** (Space Hazards Applications)

Poster Number: M2

Poster - Testing Assumptions Underlying Radiation Belt Models

**Woodroffe, Jesse** (Los Alamos National Laboratory)

Poster Number: M3  
Poster - The LANL SHIELDS Project

**Nagatsuma, Tsutomu** (National Institute of Information and Communications Technology)  
Poster Number: M4  
Poster - Development of NICT's MeV electron forecast model through the outer radiation belt

**Nagatsuma, Tsutomu** (National Institute of Information and Communications Technology)  
Poster Number: M5  
Poster - Initial Observations of Space Environment Data Acquisition Monitor (SEDA) on Board Himawari-8

**Golightly, Michael** (Assurance Technology Corp)  
Poster Number: M6  
Poster - Design, calibration and specifications of the Space Environment In-Situ Suite (SEISS) space weather instruments for the GOES-R program

**Yi, Kangwoo** (Kyung Hee University)  
Poster Number: M7  
Poster - Dependence of spacecraft anomalies at different orbits on electron/proton particle flux

**Meier, Matthias** (German Aerospace Center)  
Poster Number: M8  
Poster - A space weather index for the radiation field at aviation altitudes

**Matthiä, Daniel** (German Aerospace Center (DLR))  
Poster Number: M9  
Poster - PANDOCA - Professional Aviation DOse Calculator

**Phillips, Tony** (spaceweather.com)  
Poster Number: M10  
Poster - Rads on a Plane

**Tobiska, W. Kent** (Space Environment Technologies)  
Poster Number: M11  
Poster - Operational advances for atmospheric radiation dose rate specification

**Kress, Brian** (NOAA/NGDC)  
Poster Number: M12  
Poster - Geomagnetic cutoff response to variations in magnetospheric current systems

**Park, Eunsu** (Kyung Hee University)  
Poster Number: M13  
Poster - Observational test of magnetopause location models and nowcast of geosynchronous magnetopause crossings

**Gannon, Jennifer** (Computational Physics Inc.)  
Poster Number: M14  
Poster - AVERT model for GIC Hazard Analysis

**Rigler, Josh** (USGS)

Poster Number: M15

Poster - Dynamic geomagnetic hazard maps in space weather operations

**Zanetti, Lawrence** (JHU/Applied Physics Laboratory)

Poster Number: M16

Poster - Geomagnetic Disturbances – Prediction and Verification